

Replication Report EnhanceFitness



Project Enhance
Senior Services
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Senior Services

For more than 37 years, Senior Services has been the leading community resource for seniors, serving over 52,000 people each year and involving over 6,500 volunteers. Senior Service's mission is to promote the emotional, social and physical well being of older adults. It fulfills this mission by providing fourteen core programs such as nutrition and Senior Information and Assistance, in addition to the pioneering evidence-based wellness programs of Project Enhance: EnhanceFitness and EnhanceWellness.

University of Washington Health Promotion Research Center

The Health Promotion Research Center, part of the School of Public Health and Community Medicine, Department of Health Services at the University of Washington in Seattle, WA, is one of 33 dedicated Prevention Research Centers in the United States. These centers are funded by the Centers for Disease Control and Prevention through their Prevention Research Center Program (cooperative agreement # 1-U48-DP-000050). HPRC is one of two centers whose focus is on healthy aging.

HPRC conducts community-based research projects aimed at promoting the health and well-being of Washington State residents, with a focus on older adults. HPRC's mission is to improve health by conducting high-quality prevention research that has an emphasis on healthy aging and can be incorporated into community practice.

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I. Introduction/Background

Physical Activity and Older Adults

Communities throughout the country are changing—and aging. Today, the number of people aged 65 and older is increasing significantly across the United States. Those seniors age 85 and older represent the fastest growing segment of our population.

Chronic diseases are a major issue for most individuals as they age, as well as for healthcare system providers and for those who pay the bills. The number of elders coping with chronic illness and disability is expected to escalate in the coming years, increasing demand on healthcare and long-term care systems, and resulting in unnecessary pain and suffering for many older adults.

It is commonly recognized that regular physical activity in the older adult population can decrease the risk of developing high blood pressure, osteoporosis, heart disease, diabetes and depression. Seniors—even the frailest—can improve their health and maintain their independence by incorporating daily physical activity into their lives. To do this, seniors need access to enjoyable physical activity opportunities designed specifically for them that are proven to be effective.

EnhanceFitness

One such physical activity program that is becoming more accessible to older adults across the country is EnhanceFitness. EnhanceFitness is a multi-component group exercise program designed for community-based organizations and intended to promote physical activity among older adults. The hour-long EnhanceFitness class is held over three sessions per week. Classes are taught by a fitness instructor nationally certified and trained in EnhanceFitness protocols. The instructor typically teaches at community sites, with senior centers the most likely setting. Each class includes:

- Strength training using soft wrist and ankle weights
- A cardiovascular workout using dancing, aerobics, or walking, depending on participant ability and desire
- Strength, balance and posture exercises

Fitness Checks are conducted when participants enroll in the program and four months thereafter. These results are provided to funders, organizations, and participants. Ongoing education is provided to instructors through an annual workshop and monthly newsletters.

The Original Study – Lifetime Fitness Program

EnhanceFitness (formerly known as the Lifetime Fitness Program) was developed and tested in 1994 by researchers at the University of Washington (UW) in collaboration with Senior Services (Northshore Senior Center), and Group Health Cooperative (GHC). The original study, published in 1998, found that participation in EnhanceFitness improved physical and psychological functioning in older adults, and was an effective way to prevent functional decline.¹

¹ Wallace JI, et al. (1998). Implementation and effectiveness of a community-based health promotion program for older adults. *Journal of Gerontology: Medical Sciences*, 53a(4): M301-M306.

Volunteer participants were randomized into a control group (which did not receive any special services but which was eligible to attend the exercise classes after completing the pilot study) and an intervention group enrolled in EnhanceFitness (then called Lifetime Fitness) for six months. The sessions were conducted by a trained instructor and included balance, strength, aerobic and flexibility exercises.

Study Results

Over the six months, the intervention group improved in physical, emotional and social health scores while the control group deteriorated in these measures. Overall, the intervention group had significantly better health status than the control group. Study participants realized a:

- 13% improvement in social function
- 52% improvement in depression
- 35% improvement in physical functioning

This independent study demonstrated that EnhanceFitness significantly improved overall fitness and health in older adults.

Program Adaptations

The program has had many enhancements but few adaptations. Several exercises were changed as a result of new research showing some exercises were either unsafe or inappropriate for older adults. The basic class structure, however, has remained the same, although some sites may start with two days a week and increase to three if the site is initially unable to accommodate three days.

Enhancements include:

- Conducting ongoing performance tests (Fitness Checks)
- Tracking attendance
- Holding annual instructor workshops (in Seattle)
- Developing participant and organizational marketing materials (flyers, brochure, website, marketing package)
- Requiring instructors to be certified by a nationally recognized fitness organization
- Providing class and instructor quality assurance activities and support

Ongoing Evaluation

Additional effectiveness studies have been conducted since the original trial to evaluate the impact of the program in different populations and settings. A UW cost analysis on members of Group Health Cooperative (GHC) showed EnhanceFitness participants' healthcare costs were 21% less than those of non-participants' costs after one year.² Another study of participants in ethnic community sites with nutrition programs showed that these participants, although less physically fit to start with when compared to

² Ackermann RT, et al. (2003). Community exercise program use and changes in healthcare costs for older adults. *American Journal of Preventative Medicine*, 25(3): 232-7.

majority-white communities, showed greater improvement after four months than those in majority-white sites.³

Program Delivery

EnhanceFitness classes are taught by certified fitness instructors who have additional training in working with older adults. Instructors collect performance measures and attendance on each participant so they can provide the feedback and motivation participants need to stay physically fit, as well as to help evaluate the program's effectiveness on an ongoing basis. The training EnhanceFitness instructors receive and the workout program they provide were designed and have been continually refined by researchers in older-adult health and exercise sciences.

Program funders cover the cost of equipment (weights, chairs, etc.), training fees, and, in some cases, instructor salaries. Funders range from local Area Agencies on Aging (AAA) to healthcare organizations, local service organizations, and foundations. EnhanceFitness providers include senior centers, community centers, retirement communities, churches, YMCAs, and healthcare providers. Any location that is accessible and has appropriate space for conducting fitness classes can function as an EnhanceFitness site.

Program Benefits

EnhanceFitness is unique in two ways. Few fitness programs for older adults are multi-component, including balance, strength, endurance, and flexibility exercises. Also, few, if any, are geared to the level of both active and frail adults.

Since 1994, more than 7,800 adults have participated in EnhanceFitness. As new sites implement EnhanceFitness, participants continue to show improvements on functional fitness indicators consistent with the original study findings. The program has proven benefits for all who are connected with the program—from participants to sites to program funders. It continues to be enhanced with the latest research on older adults and physical activity while maintaining fidelity to the original study, and it continues to expand its reach to diverse populations and settings.

³ Belza B., Shumway-Cook A, Phelan E.A., Williams B, Snyder S.J. (2006). The effects of a community-based exercise program on function and health in older adults: the EnhanceFitness Program. *The Journal of Applied Gerontology*, 25(4): 291-306.

II. Planning and Partners

Preparation and Planning

Planning is key to successful program implementation and sustainability of EnhanceFitness. It is also important to include potential participants, funders, researchers, and providers in the planning process to help ensure that the program is located in sites that can support it while providing access to those most in need.

Senior Services began disseminating EnhanceFitness throughout King County in 1997 after receiving funds from the local AAA for dissemination support. Classes were held at senior centers serving diverse populations in rural and urban areas. Local foundations paid for weights for each new site. Senior centers provided in-kind space and hired class instructors. Instructor salaries were paid through a small class fee charged to participants.

Program Partners

Our research partners—Group Health Cooperative and the University of Washington—continue to collaborate with Senior Services. Each organization has a representative who sits on the EnhanceFitness steering committee. This committee continues to meet on a regular basis to review program enhancements and revisions and plan annual instructor workshops.

Project Enhance worked with the NCOA in 2004/2005 to develop and test a customized version of the Diffusion of Innovation (DOI) Expert System to assess the capacity and willingness of senior centers to implement the two Project Enhance programs – EnhanceFitness and EnhanceWellness. The study demonstrated the feasibility of customizing a generic, interactive, web-based system to assess the key elements required to implement the programs, to understand the status of diffusion in a group of potential adopters (senior centers in four states), and to develop data-driven diffusion strategies.

Though this work, we learned that the top three benefits for potential senior center adopters were the programs' ability to:

- Attract new people to the centers
- Broaden the range of activities offered
- Minimally affect staffing and facility use

The greatest challenge facing potential adopters was securing funding for start-up and ongoing operations. These findings have been corroborated by our expansion efforts since the DOI project.

Researchers and organizations from across the country are now working with Senior Services to test EnhanceFitness in various venues with diverse populations. Current research projects include work with the University of Washington School of Nursing, UCLA, West Virginia University, and Miami International University.

A large nutrition provider in Portland, Oregon, called Loaves and Fishes is working with the UW School of Nursing to test EnhanceFitness at its congregate nutrition sites, which serve culturally diverse populations. The Kansas Department on Aging received a

foundation grant to disseminate EnhanceFitness throughout its state. The state of Washington's Aging and Disability Services Administration is working with Senior Services to adapt EnhanceFitness for people with dementia who attend day health and day care programs. Other partnerships in Washington state include work with community health clinics, state health and aging departments, parks and recreation departments, community sites serving specific ethnic populations, and public housing authorities.

Because local grant makers and their partners have seen how their resources and commitment to healthy aging result in ongoing, sustainable physical activity programming, they provided additional funding for program equipment and instructor salaries to expand the program.

III. Adoption – Recruiting Implementation Sites and Staff/Volunteers

Local Dissemination

Dissemination of EnhanceFitness was first targeted to senior centers whose operators attended an informational meeting about the program. Attendance at the meeting demonstrated centers' interest in and commitment to learning more about EnhanceFitness. As AAA funding increased, more senior centers implemented EnhanceFitness. In addition, the University of Washington Health Promotion Research Center provided funding to implement EnhanceFitness in sites serving communities of color and helped identify potential sites, as did local foundations such as the Group Health Foundation.

The AAA funding paid for staff to manage, train, and monitor EnhanceFitness sites. While Senior Services provides the site coordination, training, and monitoring, the sites directly employ instructors, typically through personal service contracts. This collaboration works well since sites have direct contact with the instructors and can pay salaries commensurate with available resources. The Senior Services EnhanceFitness trainer continues to provide support to instructors through class visits and phone and email correspondence.

Site Support

Sites that implement EnhanceFitness receive instructor training, support materials such as flyers and brochures, and outcomes data compilation and analysis, including a site-specific annual outcomes report. They also receive tools for evaluating the class to ensure classes include all required exercises. Sites can also arrange training for new instructors when turnover occurs. An annual workshop for ongoing instructor education and feedback is available not only for instructors, but also for interested staff and volunteers from EnhanceFitness sites.

Sites provide their space and the utilities used in teaching the class as in-kind support. This mutually beneficial collaboration has worked very well throughout the years.

Barriers to Participation

Barriers to sites implementing the program are varied. They include:

- **Obtaining funding.** Funding to pay for initial costs such as weights and funding for ongoing instructor salary are sometimes difficult to obtain.
- **Finding certified fitness instructors.** Once funding is obtained, sites must find a certified fitness instructor. This can be challenging, especially in rural areas and sites serving limited- and non-English-speaking participants.
- **Completing baseline and follow-up performance measures.** Instructors and participants may not see the value of such testing, although instructor training includes the rationale for these measurements as well as training on performing the testing.

Although numerous barriers exist, sites that are truly committed to making the program work are able to remove or at least reduce the barriers. Plus, EnhanceFitness sites can communicate with each other through a listserve, sharing their experiences and solutions in addressing these barriers.

Tools for Success

Project Enhance has developed tools to assist with successful EnhanceFitness program adoption since 1997 based on sites' experiences in adopting the program. Tools include a budget worksheet, license agreement, website for program information, published articles about the program and its effectiveness, and a listing of current site locations for adopters who want to observe actual classes and the variety of settings where the program can be offered. (See Section VIII: Tools and Resources)

IV. Reach and Recruitment

Target Population

The target population for EnhanceFitness is sedentary older adults wishing to maintain and/or improve their physical functioning and stay socially connected. In 2005, the program served 3,604 participants in over 100 community-based sites, including sites specifically serving Korean, Vietnamese, African-American, Latino, Hmong/Laothian, Native-American, and Filipino older adults. The following are characteristics of these participants:

- 97% age 60 or older
 - 60% age 75 or older
 - 15% age 85 or older
- 59% report income as “low” or “very low”
- 44% live alone
- 18% have a disability
- 6% speak limited or no English
- 7% are immigrants or refugees

Class Size and Recruitment

Each EnhanceFitness class can accommodate 20 to 25 participants, if suitable space is available. As sites experience greater demand for the class, more classes may be offered at that site or in collaboration with other area organizations.

Participants are recruited in a variety of ways.

- Through sites’ normal marketing activities, such as newsletters, public service announcements, and flyers
- Through the Project Enhance web site, which lists all locations that offer EnhanceFitness classes and links to those locations’ web sites
- Through partnerships with other organizations. For instance, thanks to Senior Services’ partnership with Group Health Cooperative, GHC sent postcards to all Medicare members in nearby zip codes informing them of EnhanceFitness classes in their area. GHC Medicare members can take the class free, while the GHC reimburses the site directly.
- Through congregate meal sites where classes are often held so meal participants can take the class immediately before or after the meal
- Through word-of-mouth once a class is up and going.
- Through the class locations. Classes are held in locations that older adults frequent, and exposure to the classes is usually excellent for recruitment.

Barriers to Participation

Some older adults are reluctant to participate because they have never taken a group exercise class before or because the class is in a facility they haven’t previously visited. They may also be reluctant to attend a class on their own, feel that the class is too hard for them or, if fees are charged, cannot afford it.

Participation Facilitators

Focus groups conducted with ethnically diverse older adults revealed that the following can provide greater participation:

- Fostering relationship building. You can connect participants with each another through group meetings, support groups, and classes.
- Providing different ability levels of classes. EnhanceFitness has two levels, a seated and standing version.
- Bringing programs to where people live, including public housing buildings, retirement communities and community centers.
- Partnering with other programs such as congregate meals, churches and language classes.
- Targeting classes and programs towards older adults from similar cultural and linguistic backgrounds.
- When possible, supporting programs with external funds so the program can be low or no cost.
- Conduct focus groups to involve older adults in development and evaluation of the program.⁴

Many of these same features are applicable to majority white populations. One of the best modes of recruiting participants and ensuring the success, accessibility, and sustainability of the program is to have community leaders and funders endorse the program. Expanding the program from a few target locations to widespread dissemination is extremely beneficial in raising awareness of the program itself. Published articles and national recognition of the program have also helped increase program awareness. Finally, word-of-mouth recommendations from class participants to their friends, family, and neighbors have been one of the most powerful recruitment tools available.

⁴ Belza, B. et al. (2005) *Elder Perspectives on Physical Activity: A Multi-Cultural Discussion*.

V. Implementation

The Core Program

EnhanceFitness classes are held three times per week in hourly sessions. There is a day between classes to give the body time to recover from the strength exercises. If the class must be held two days in a row, the strength exercises should only be performed on one day, or upper-body strength exercises may be done one day and lower-body strength exercises the next. The majority of classes are held on Mondays, Wednesdays, and Fridays in the morning. However, classes are beginning to be held in the afternoon and evenings and on Saturdays.

EnhanceFitness core components include:

- Five to eight minutes of warm-up activities
- Twenty minutes of cardiovascular endurance/aerobics
- Three to five minutes of cardiovascular cool-down
- Twenty minutes of upper- and lower-body strength training
- Ten minutes of balance, flexibility/posture exercises

Health Impact of EnhanceFitness

These core components are included in the EnhanceFitness class because:

- Strengthening muscles as one ages helps preserve the muscles and bones necessary for standing and walking, thus helping prevent falls and loss of independence.
- Strengthening muscles makes it easier to perform everyday tasks such as getting out of a car or up from a chair.
- Proper posture reduces strain on organs, muscles, ligaments, and bones.
- Proper posture reduces the risk of injury and insures participants are exercising or stretching the proper muscles.
- Movement decreases the risk of falling, particularly when doing regular exercises to improve balance.
- Stretching improves the flexibility of numerous muscles.
- Cardiovascular exercise improves stamina, mood, heart and lung health, weight control, and metabolism.

The class also provides a venue for social interaction and engagement, which helps prevent participants from becoming socially isolated. Such isolation often reduces fitness levels and increases the risk of depression. EnhanceFitness instructors also encourage participants to be physically active outside of class.

Studies find that regular physical activity has important positive effects on the musculoskeletal, cardiovascular, respiratory, and endocrine systems⁵. The World Health Organization's (WHO) *Guidelines for Promoting Physical Activity Among Older Persons* (1997) conclude that there is compelling evidence that regular physical activity can assist in avoiding, minimizing, and/or reversing many of the physical, psychological, and social hazards that often accompany advancing age. Other research shows that physical

⁵ (US Department of Health and Human Services, 1996)

activity offers one of the greatest opportunities to extend years of active independent life, reduce disability, and improve the quality of life for mid-life and older persons.⁶

EnhanceFitness, over the past nine years, has affirmed these studies, finding that the program:

- Maintains or enhances cardio-respiratory fitness, muscle strength, balance, and flexibility.
- Appears to prevent falls. Balance training in particular seems important in fall prevention.
- Maintains or improves physical functioning, particularly among older adults who have functional impairments.
- Results in lower healthcare costs for participants. Research suggests that this effect varies according to how often people participate in class.

Impact of EnhanceFitness on Participating Organizations

Initially implemented at senior centers only, EnhanceFitness classes are now being held in retirement communities, churches, hospitals, YMCAs and community centers.

Benefits to organizations providing EnhanceFitness include:

- New members visiting the organizations' centers/sites
- Happier and more physically fit members
- Ability to provide a program based on measurable results and backed by research
- Traffic during off-peak hours
- Repeat clientele and client referrals
- Ability to provide a nationally recognized program
- Access to the extensive knowledge and expertise of EnhanceFitness and its national network of affiliates

These individual and organizational benefits fully warrant the staff time and resources the program requires. This can be seen in the exponential increase in sites and participants since the initial dissemination in 1997.

EnhanceFitness bases its success on the following factors:

- It is evidence-based.
- It provides social support and stimulation in addition to exercise.
- It is easy for a senior center, health club, community center, or similar facility to adapt to their existing space and population.

Program Fidelity

Fidelity in implementation means remaining true to the original, scientifically validated model. Fidelity is extremely important to EnhanceFitness for several reasons:

⁶ Atienza, 2001; Eakin, 2001; Linnan & Marcus, 2001; Stewart, 2001; US Department of Health and Human Services, 1996

- We want to know that no matter where the class is provided, it includes the core components of class—i.e., participants can take the class in Portland, Oregon, and take the same class in Portland, Maine.
- Program data, specifically functional fitness testing results, cannot be compared from site to site or against national averages if classes do not follow the core curriculum.
- Program funders are funding a program based on evidence—not a program derived from and different from the original.

Program Adaptations

However, fidelity to the model still allows for adaptations and enhancements based on ongoing research. For example, the original model included exercises that were difficult for some functionally impaired participants. Thus we created a Level I curriculum with modifications to several exercises so participants could complete them in a seated position while still meeting the requirements of the multi-component model.

Adaptations have also been made to the original data collection process to accommodate the very different requirements of community-based classes compared to research sites while still maintaining the essential data collection the program is based on.

Another adaptation has been to define certain compromises in class curriculum (such as gradually increasing the number of exercises taught, or running a shorter class) to accommodate the needs of limited- or non-English speaking participants who may be working with a translator as well as an instructor.

These adaptations allow the program to fit with a variety of adopting sites, such as an adult day health site, where more participants require the Level I adaptations. The staff at each new site works with our staff to determine how to best implement the program in their unique setting.

EnhanceFitness Instructor Recruitment

EnhanceFitness instructors are required to have certification from a nationally recognized fitness organization. This wasn't originally required, but because our target population is becoming frailer, we felt it was important for the safety of our participants and to increase credibility among fitness professionals, funders, and policymakers. Thus, several years after our initial dissemination, we provided our original instructors with YMCA Active Older Adult certification. It is highly recommended that instructors have experience in teaching group exercise classes, particularly to older adults.

Sites can recruit instructors in a number of ways depending on their access to certified instructors. If the site does not have a certified instructor, Senior Services can provide YMCA certification to a candidate for a small fee. Instructors can also be certified through other nationally recognized fitness certification organizations. There are literally hundreds of these organizations but the better-known certifications are the American Council on Exercise and the American College of Sports Medicine. However, sites that have identified volunteers or existing staff for EnhanceFitness instructor training often choose the YMCA certification because of its lower cost and time requirement.

Instructors for the class come from a number of places. For example:

- The site may have a physical activity program similar to EnhanceFitness, but wants a more formalized, proven program with data collection capacity. That site may choose to train the current instructor as the EnhanceFitness instructor.
- Site staff, either paid or volunteer, may add teaching the class as part of their job.
- Volunteers such as retired PE teachers or older adults who want to stay fit themselves may become instructors
- Newspaper ads are good ways to recruit instructors.
- Certification organization websites (such as <http://www.acefitness.org/>) provide another option.

EnhanceFitness Instructor Training

Once instructors are selected, the site works with Senior Services to set up the 1.5-day EnhanceFitness training. (If the site is also having instructors receive the YMCA certification training, both trainings may be scheduled consecutively). In Seattle, trainings are offered once a month. Training dates are determined on an as-needed basis for other sites. Instructors receive a manual during the training that includes complete descriptions of the exercises taught, outcomes testing and data collection protocols, and other program information.

EnhanceFitness Master Trainer Training

The EnhanceFitness T-Trainer trains instructors who deliver the class to participants and Master Trainers (who can train instructors). A Master Trainer is required to have a nationally recognized fitness certification, experience in teaching older adult group exercise classes, and training in how to teach older adults.

We recommend that organizations interested in hosting a Master Trainer choose the candidate from among experienced EnhanceFitness instructors. This helps ensure that the Master Trainer is familiar with and committed to the class. The Master Trainer not only trains new instructors, but also provides quality assurance activities such as class reviews, helps manage instructor recruitment, and provides technical assistance to instructors and site staff. The Master Trainer may be or become a Program Manager as the program expands to multiple sites.

It is critical that organizations or states with more than 10 EnhanceFitness sites have a Program Manager to provide quality assurance activities, recruit appropriate instructors, and manage program paperwork.

Tools

Tools to support implementation activities include job descriptions, staff training, and a class DVD with outcomes testing. The EnhanceFitness instructor training manual provides backup to the actual training and is an ongoing support to new instructors. It supports program fidelity by specifically discussing the required exercises, including how they should be performed and why they are required.

The manual also describes outcomes testing protocols to ensure consistency in testing procedures. The *Issue Brief on Recruiting and Retaining Effective Instructors*, published by the National Council on Aging Center for Healthy Aging (#3, Spring 2005) is a helpful tool in addition to the resources cited within the brief.

VI. Maintenance

Local Dissemination

The initial goal of Senior Services in disseminating EnhanceFitness after the original study was to have the class available to at least 10 sites within King County. The need, of course, was far greater than those 10 sites, and Senior Services wanted to make the class accessible to as many older adults as possible. Additional sites have been added each year. Today, there are 51 sites in King County. While the number of sites has been increasing, the King County government funding that once covered EnhanceFitness management has not. Thus, new partnerships have been developed as our program ages. These help keep us vibrant, robust, and in the black. We also earn income by licensing the program to other organizations.

National Dissemination

Our marketing efforts started simply by making presentations at national conferences and meetings of specialized professional organizations. This, in addition to program training manuals and a data collection system, resulted in non-local organizations that wanted to implement the program. Senior Services began providing training to these organizations, charging for staff time, expenses and training materials, all of which has led to greater dissemination of the program.

While EnhanceFitness has received substantial funding from prestigious foundations such as The Robert Wood Johnson Foundation and federal agencies such as the Administration on Aging and the Centers for Disease Control and Prevention, these funds cannot be relied upon for the long term. Our goal is to have a self-sustaining program through program-earned income sales.

Senior Services hired consultants to develop a business plan for Project Enhance to ensure that we were:

1. Covering our operational expenses.
2. Targeting appropriate markets, and
3. Bringing on new staff at appropriate times to reach our goal to be self-sustaining.

Senior Services also hired a marketing consultant in 2004 to help develop a branding identity, accompanying print and web-based communications, and evaluate current and potential customers' views of the program's strengths and weaknesses. Based on the consultants' findings, we changed our name from Senior Wellness Project to Project Enhance, and from Lifetime Fitness Program to EnhanceFitness. We also developed a website (www.projectenhance.org) to inform individuals and professionals about EnhanceFitness.

A key marketing tool is a bright orange packet containing information about Project Enhance. This packet is one of the best marketing tools we have, next to visiting actual classes. It has brought praise not only from non-profit but also corporate managers. It is extremely professional looking and concisely states who we are, what we do, and how you can participate in EnhanceFitness, whether at the individual or organizational level.

EnhanceFitness has been purchased by another HMO, UCare of Minnesota, and by a number of retirement communities. Individuals from other countries who have visited

sites in Seattle or participated in classes have returned to their home country and procured funding for training. Our favorite example was the invitation to train physicians as EnhanceFitness instructors in Beijing, China, which we did in 2004. Another example is a participant's sister who attended class while visiting from Dublin, Ireland. She plans to implement the class in Ireland.

Although these are wonderful international examples, we have even more domestic examples. EnhanceFitness instructors and participants who move to areas without the program market it themselves so they can continue participating in or teaching the classes. We now have over 125 sites around the country and even more advocates for disseminating the program.

Program Maintenance

Senior Services has taken several steps to maintain EnhanceFitness, including:

- Developing a business plan
- Conducting a market analysis
- Creating marketing materials specific to markets identified in the analysis
- Comparing site fees and instructor salaries to determine if site costs are covered
- Creating a marketing package

Class fees are requested at the majority of sites in King County (typically \$2.65 a class) to cover the cost of the instructor's salary. Exceptions include those sites in low-income areas or in retirement housing in which classes are offered at no cost. A study conducted in 2006 by Senior Services found older adult fitness class fees offered in the community ranging from \$2 to \$10 per class. Even with the fee, the EnhanceFitness class is a bargain compared to market rates for similar programs. Some centers actually make a slight profit from the classes, which helps pay for operational expenses such as utilities or increase instructors' salaries.

Other areas of potential funding include the sale of licenses to employee wellness programs and corporate sponsorships.

Tools benefiting EnhanceFitness can be shared with others who want to make their program self-sustaining. Our national network of affiliates has an incredible knowledge base of successful activities to maintain their local programs, and are willing to share their knowledge on program maintenance.

VII. Effectiveness, performance measures and other outcomes

The Value of Program Outcomes

Performance measures testing (Fitness Checks) of EnhanceFitness participants provides a way to evaluate the success of the program at both the individual and program levels. This information is valuable to everyone involved, from instructors to program managers—but especially to participants who can see the improvement in their own fitness.

One of the key features of EnhanceFitness is that it is an evidence-based program. The training that EnhanceFitness instructors receive and the workout program they provide to participants were designed and have been continually refined by researchers in older-adult health and exercise at the University of Washington. EnhanceFitness is committed to maintaining a high-quality, evidence-based program.

Fitness Checks

Fitness Checks, also referred to as outcomes testing, are assessments of a participant's functional fitness. EnhanceFitness's performance measures include three tests:

- An upper-extremity strength test (30 seconds of biceps curls using a standardized weight)
- A lower-extremity strength test (sitting and standing from a chair for 30 seconds)
- A balance and walking skill test (eight-foot up-and-go).

A site may also choose to include three optional balance and endurance tests.

These tests come from the set of functional fitness tests developed by researchers at California State University.⁷ Each test has age- and gender-based normal limits. A participant's score on each of the tests can be used to tell whether they are within, above, or below normal limits for a person of their age and sex. EnhanceFitness instructors are trained to recognize how feedback from these tests can help them work with each participant's individual fitness level.

The Performance Measures data collection form also asks five survey questions that relate to the following areas:

- Self-perception of general health
- Self-perception of improvement in physical function as a result of participating in the program
- Recent fall history
- Use of modified (seated) EnhanceFitness exercises in class
- Physical activities outside of class

To obtain a true baseline performance measurement, new participants are tested within two or three classes of enrolling in EnhanceFitness. To measure their progress, the new participants should be tested again four months later. By comparing the change (or lack of change) in their scores, both participants and instructors can see how the program

⁷ Rikli RE, Jones CJ. 1999. Development and validation of a functional fitness test for community residing older adults. *J Aging Phys Act*, 7:127:159

has affected the participant's functional fitness levels or where participants may need to work harder to see improvement.

Some sites continue to test participants on an ongoing basis, every four months after starting the program. Instructors and participants may like to see how they continue to improve or maintain their fitness levels as they continue attending classes. Others sites test just once or twice a year after a participant's baseline and four-month follow-up tests. Some sites choose not to continue testing participants after the baseline and four-month follow-up, finding that participants are motivated to continue simply because of how much better exercising makes them feel.

EnhanceFitness Data Collection

Project Enhance provides computer-scannable data collection forms. Once forms are completed, they are entered into the EnhanceFitness database. Once a year (or upon request), Project Enhance provides sites with a report on performance measurements for their participants.

The data on all sites is shared with our research partners at the University of Washington unless the participant has declined to participate in this research (by initialing a paragraph on the consent form). The UW researchers ensure that our program continues to use the best and most recent information about older-adult exercise.

EnhanceFitness instructors conduct the performance measures. While they follow standardized testing protocols, instructors may implement the protocols in different ways depending on the number of instructors, site staff, or volunteers available, and the class size.

For example, some instructors may set up testing stations and pair participants so one keeps time and counts for the other. At sites with more than one instructor, or with other staff or volunteers available, staff may supervise each testing station as participants rotate through. At smaller sites, or if the instructor has time available outside of class, participants may meet with the instructor individually to perform the tests.

Each site finds a technique that works best for its circumstances. Project Enhance staff are always available to offer suggestions, and the EnhanceFitness listserv is available so instructors can talk to each other about solutions.

Ongoing Evaluation

EnhanceFitness maintains a list of potential research questions so researchers and students can know what we would like to have further evaluated. We have had excellent work conducted by graduate students from the University of Washington. Because of the increasing number of researchers involved in evaluating EnhanceFitness, we will be adding a section to our website so researchers can learn about past and current research projects, our research partners, and potential research questions. In addition, we are developing a web-based data entry system for EnhanceFitness so sites can enter their own data and generate reports as needed. (Currently reports are generated from the administrative office at least once a year, more often if requested.)

We are excited about the coming years and about expanding the evidence not only for EnhanceFitness, but for all who are interested and involved in physical activity and wellness programming for older adults.

VIII. Appendices of Tools

Many of these tools are available on the Project Enhance Web site (www.projectenhance.org) and others will be available on the Web site of the Center for Healthy Aging (www.healthyagingprograms.org). Organizations interested in replicating Enhance Fitness receive additional tools as part of their licensing of the program.

1. Introduction/Background
 - a. List of EnhanceFitness Publications
2. Planning and Partnerships
 - a. "From Theory to Practice: Testing an Expert System for Diffusing Evidence-based Health Programs" Executive Summary
3. Adoption
 - a. Website
 - b. Project Enhance License Agreement
 - c. EnhanceFitness Excel Budget Worksheet
 - d. List of EnhanceFitness sites
4. Reach
 - a. Project Enhance Marketing Package
 - b. EnhanceFitness Brochure
 - c. EnhanceFitness DVD
 - d. EnhanceFitness Participant Guide
 - e. EnhanceFitness PowerPoint Presentation
 - f. EnhanceFitness Physician Letter
 - g. EnhanceFitness T-Shirts
5. Implementation
 - a. EnhanceFitness List of Locations
 - b. EnhanceFitness Reporting Tools
 - a. Participant Information Form
 - b. Participant Enrollment Form
 - c. Physician Notification Letter
 - d. EnhanceFitness Participant Questionnaire
 - e. EnhanceFitness Satisfaction Survey
 - f. EnhanceFitness Attendance Form
 - c. Cost/Budgeting Information
 - d. EnhanceFitness Instructor Manual
 - e. EnhanceFitness Master Trainer Manual
 - f. Certification of EnhanceFitness Instructor Training
 - g. Participant welcome letter
6. Maintenance
 - a. Renewal Fees and Agreement
 - b. Annual Site Outcomes Report
7. Effectiveness/Efficacy
 - a. Performance Measures
 - (1) Rikli-Jones Functional Fitness Test
 - (2) Dissemination Growth since 1997
 - (3) Annual Program Outcomes Report

